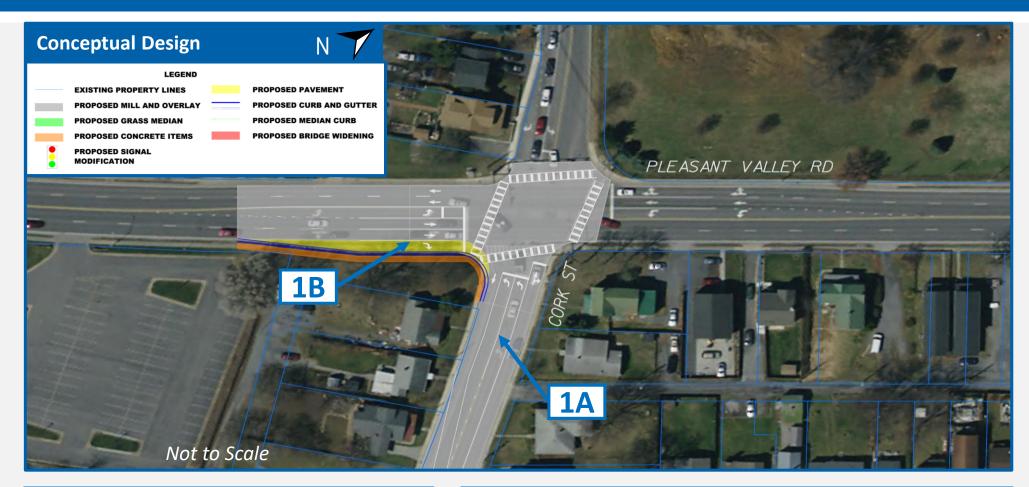
Improvement #1: Cork Street and Pleasant Valley Road

(1A) Add Second Westbound Left-Turn Lane; (1B) Add Northbound Right-Turn Lane

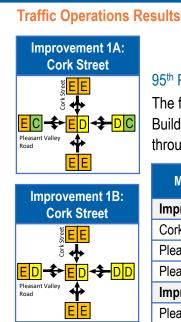


Operations and Safety Improvements

The following recommendations are projected to improve operations and/or safety along Pleasant Valley Road.

Cork Street and Pleasant Valley Road

- Improvement 1A: Add Second Westbound Left-Turn Lane
 - ✓ Improves intersection from LOS E to LOS D.
- ✓ Reduces westbound left queue lengths on Cork Street by 59%
- Reallocates green time to north and southbound movements
- ✓ Safety benefit of protected-only left turn movement
- ✓ Five-year EPDO crashes reduced by 10
- Improvement 1B: Add Northbound Right-Turn Lane
 - Reduces northbound delay and queuing
 - ✓ Improves intersection from LOS E to LOS D.
 - ✓ Five-year EPDO crashes reduced by 7



Approach LOS No-Build 95th Percentile Queue Length The following reductions in 95th percentile queue length from No-Build to Build conditions target the areas of biggest need throughout the corridor:

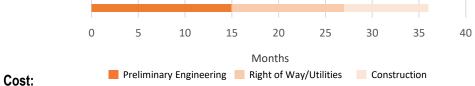
	Movement or Approach	No-Build Queue (ft)	Build Queue (ft)	% Reduction
	Improvement 1A:			
	Cork Street- WBL	#503	#206	59%
	Pleasant Valley Road- NBT	#962	695	27%
	Pleasant Valley Road-SBT	516	396	23%
	Improvement 1B:			
	Pleasant Valley Road – NBTR	#962	517	46%
	# 95th percentile volume exceeds	capacity, queu	e may be longe	er

Project Location Study Area Project Area 81 50 Winchester 37 Clarke 50 Frederick 81 522

Project Schedule & Preliminary Cost

Project schedules and cost estimate were developed based on information available at the time of study and should be reassessed prior to submitting funding applications.

Schedule:



Phase	Cost Estimate (2020 Dollars)	
Preliminary Engineering	\$550,000	
ROW and Utility Relocation	\$150,000	
Construction	\$1,330,000	
Total Cost	\$2,030,000	

Crash modification factors (CMFs) were chosen to project the reduction in all severity crashes weighted to equivalent property damage only (EPDO) crashes.

Improvement	2014-2019* EPDO	CMF	EPDO Reduction
Improvement 1A	323	Add turn lane to existing (0.97)	10
Improvement 1B	170	Change # of approaches with right turn lanes (0.96)	7

* 2019 VDOT crash data was available through July 30, 2019

